

Data Path : Z:\VOASRV\HPCHEM1\MSVOA\_N\DATA\VN010319\  
 Data File : VN053261.D  
 Acq On : 3 Jan 2019 14:43  
 Operator : MD\SY  
 Sample : PB116111ZHE#06  
 Misc : 5.00mL/MSVOA\_N/WATER  
 ALS Vial : 14 Sample Multiplier: 28

Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB116111ZHE#06

Quant Time: Jan 04 00:54:21 2019  
 Quant Method : Z:\VOASRV\HPCHEM1\MSVOA\_N\METHODS\82N121818W.M  
 Quant Title : SW846 8260  
 QLast Update : Tue Dec 18 13:03:37 2018  
 Response via : Initial Calibration

| Internal Standards         | R.T.  | QIon | Response | Conc  | Units | Dev(Min) |
|----------------------------|-------|------|----------|-------|-------|----------|
| 1) Pentafluorobenzene      | 7.67  | 168  | 1208122  | 50.00 | ug/l  | 0.00     |
| 34) 1,4-Difluorobenzene    | 8.59  | 114  | 1902502  | 50.00 | ug/l  | 0.00     |
| 63) Chlorobenzene-d5       | 11.41 | 117  | 1698117  | 50.00 | ug/l  | 0.00     |
| 72) 1,4-Dichlorobenzene-d4 | 13.34 | 152  | 610679   | 50.00 | ug/l  | 0.00     |

|                             |        |     |          |       |         |      |
|-----------------------------|--------|-----|----------|-------|---------|------|
| System Monitoring Compounds |        |     |          |       |         |      |
| 33) 1,2-Dichloroethane-d4   | 8.03   | 65  | 604774   | 49.33 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 98.66%  |      |
| 35) Dibromofluoromethane    | 7.59   | 113 | 518921   | 59.71 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 119.42% |      |
| 50) Toluene-d8              | 10.09  | 98  | 2331867  | 49.98 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 99.96%  |      |
| 62) 4-Bromofluorobenzene    | 12.40  | 95  | 738066   | 45.06 | ug/l    | 0.00 |
| Spiked Amount               | 50.000 |     | Recovery | =     | 90.12%  |      |

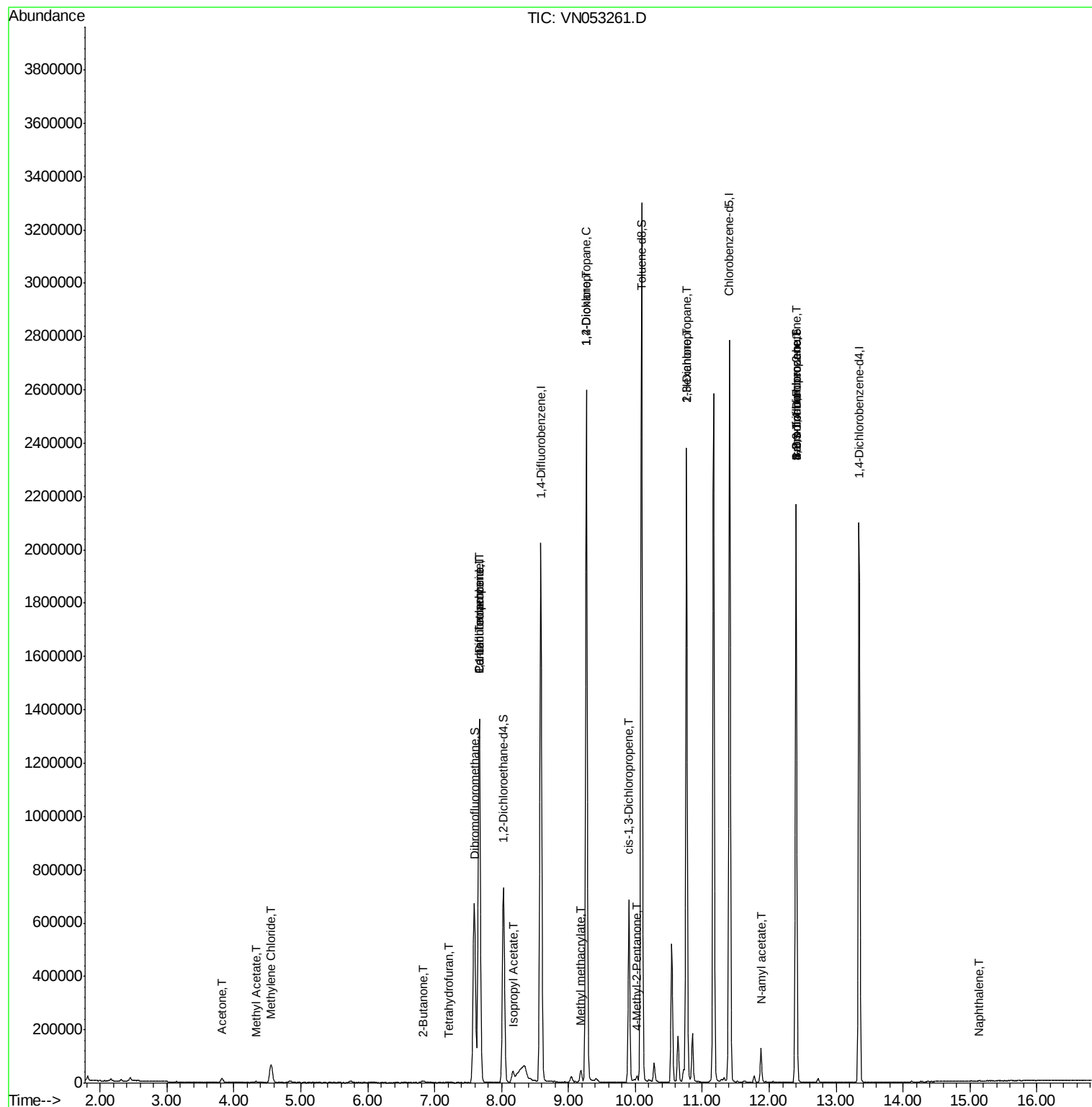
| Target Compounds               | R.T.  | QIon | Response | Conc      | Units  | Qvalue |
|--------------------------------|-------|------|----------|-----------|--------|--------|
| 16) Acetone                    | 3.82  | 43   | 28396    | 11.813    | ug/l   | 91     |
| 18) Methyl Acetate             | 4.33  | 43   | 8544     | 1.760     | ug/l   | 94     |
| 20) Methylene Chloride         | 4.56  | 84   | 52449    | 4.000     | ug/l   | 99     |
| 25) 2-Butanone                 | 6.83  | 43   | 1199     | 0.297     | ug/l   | 96     |
| 29) Tetrahydrofuran            | 7.22  | 42   | 1464     | 0.486     | ug/l # | 41     |
| 31) Cyclohexane                | 7.67  | 56   | 19620    | Below Cal | #      | 1      |
| 36) 1,1-Dichloropropene        | 7.67  | 75   | 80804    | 4.425     | ug/l # | 48     |
| 38) Carbon Tetrachloride       | 7.67  | 117  | 105021   | 6.275     | ug/l # | 16     |
| 43) Isopropyl Acetate          | 8.17  | 43   | 54626    | 1.761     | ug/l # | 83     |
| 45) 1,2-Dichloropropane        | 9.27  | 63   | 3091     | 0.218     | ug/l # | 44     |
| 48) Methyl methacrylate        | 9.18  | 41   | 14595    | 1.475     | ug/l # | 12     |
| 49) 1,4-Dioxane                | 9.27  | 88   | 327      | 2.613     | ug/l # | 1      |
| 51) 4-Methyl-2-Pentanone       | 10.02 | 43   | 19480    | 1.973     | ug/l # | 35     |
| 54) cis-1,3-Dichloropropene    | 9.90  | 75   | 128997   | 6.100     | ug/l # | 60     |
| 57) 1,3-Dichloropropane        | 10.76 | 76   | 24698    | 1.226     | ug/l # | 42     |
| 59) 2-Hexanone                 | 10.76 | 43   | 330008   | 49.408    | ug/l # | 50     |
| 71) Bromoform                  | 12.40 | 173  | 4823     | 0.510     | ug/l # | 1      |
| 74) N-amyl acetate             | 11.88 | 43   | 39154    | 2.952     | ug/l # | 52     |
| 76) 1,2,3-Trichloropropane     | 12.40 | 75   | 344538   | 33.515    | ug/l # | 100    |
| 81) trans-1,4-Dichloro-2-buten | 12.40 | 75   | 344538   | 108.022   | ug/l # | 12     |
| 95) Naphthalene                | 15.14 | 128  | 171      | 1.154     | ug/l # | 69     |

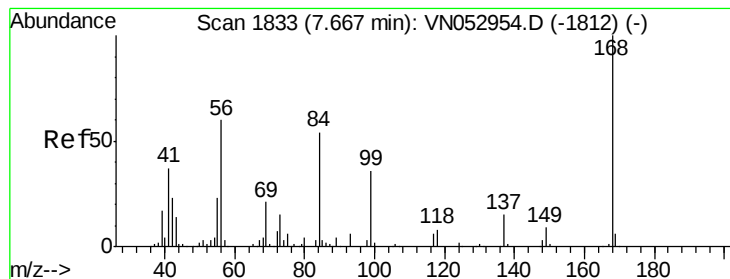
(#) = qualifier out of range (m) = manual integration (+) = signals summed

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Quant Title : SW846 8260  
QLast Update : Tue Dec 18 13:03:37 2018  
Response via : Initial Calibration





#1

Pentafluorobenzene

Concen: 50.000 ug/l

RT: 7.67 min Scan# 1833

Delta R.T. -0.00 min

Lab File: VN053261.D

Acq: 3 Jan 2019 14:43

Instrument :

MSVOA\_N

ClientSampleId :

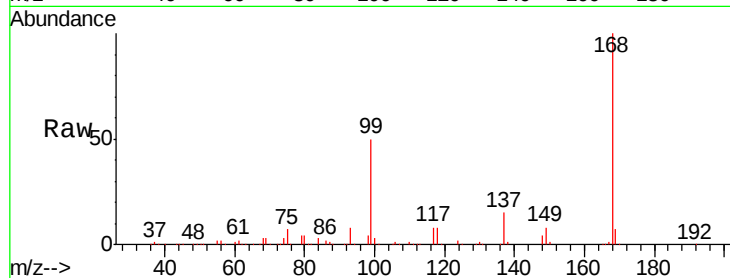
PB116111ZHE#06

Tgt Ion:168 Resp: 1208122

Ion Ratio Lower Upper

168 100

99 49.6 40.2 60.2



Abundance Ion 167.90 (167.60 to 168.60): VN053261.D (-1740) (-)

Ion 98.90 (98.60 to 99.60): VN053261.D (-1740) (-)

7.67

600000

500000

400000

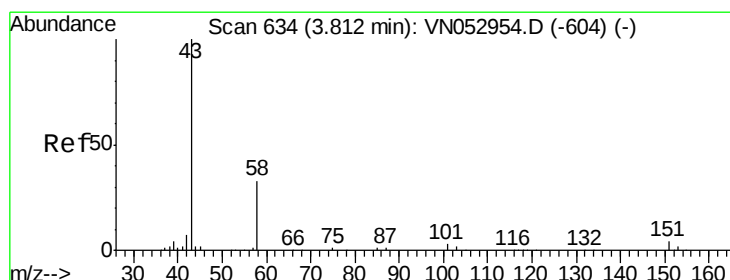
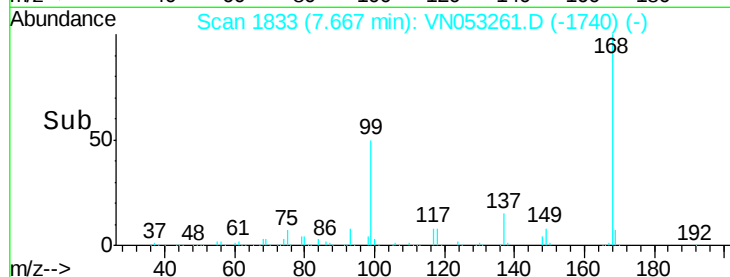
300000

200000

100000

0

Time-->



#16

Acetone

Concen: 11.813 ug/l

RT: 3.82 min Scan# 636

Delta R.T. 0.01 min

Lab File: VN053261.D

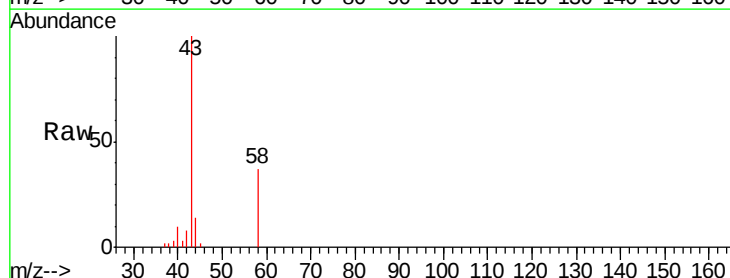
Acq: 3 Jan 2019 14:43

Tgt Ion: 43 Resp: 28396

Ion Ratio Lower Upper

43 100

58 36.9 25.4 38.0



Abundance Ion 43.00 (42.70 to 43.70): VN053261.D (-541) (-)

Ion 58.00 (57.70 to 58.70): VN053261.D (-541) (-)

3.82

12000

10000

8000

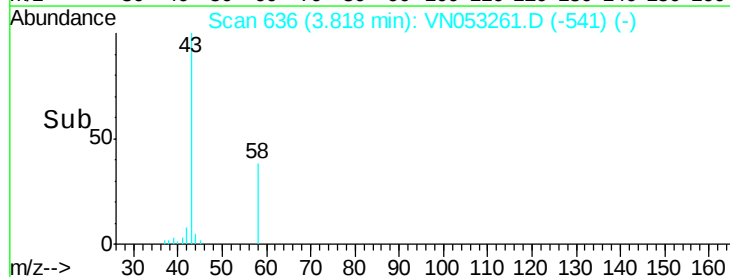
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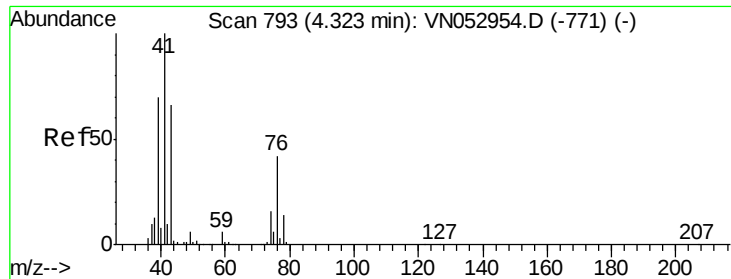
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2000

0

Time-->

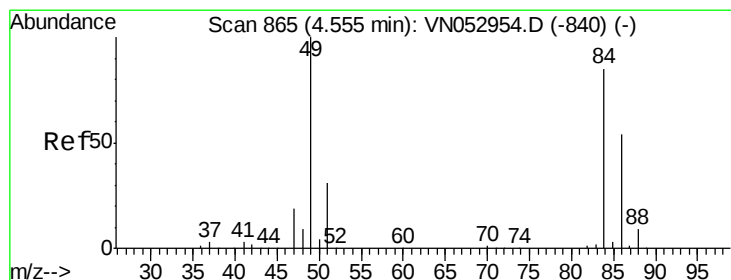
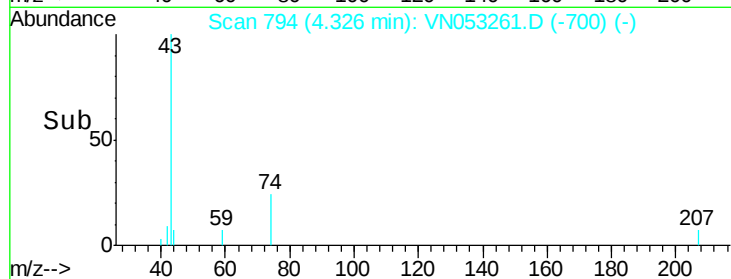
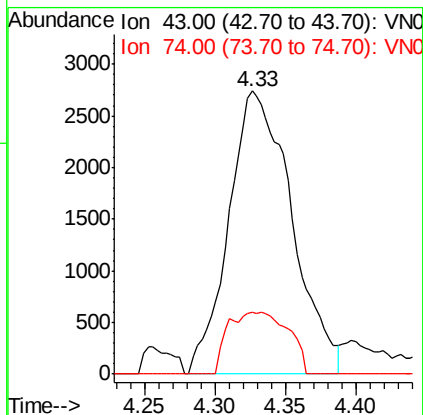
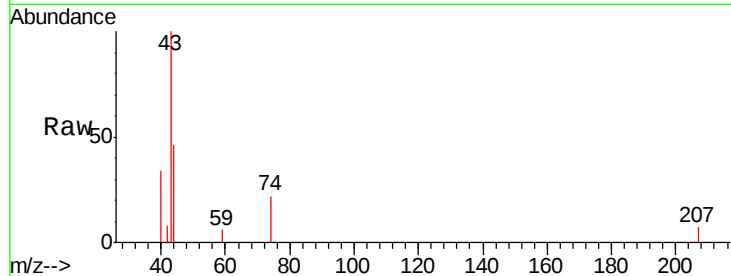




#18  
Methyl Acetate  
Concen: 1.760 ug/l  
RT: 4.33 min Scan# 794  
Delta R.T. 0.00 min  
Lab File: VN053261.D  
Acq: 3 Jan 2019 14:43

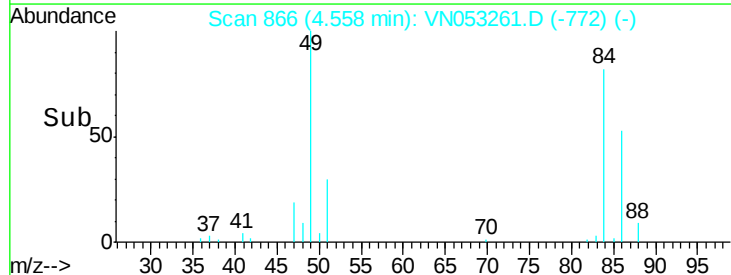
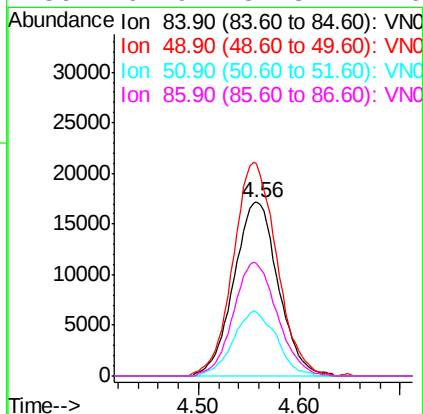
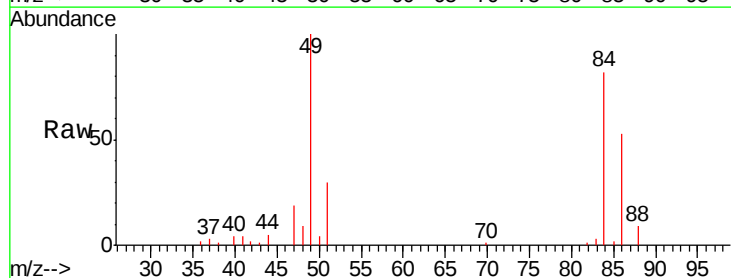
Instrument :  
MSVOA\_N  
ClientSampleId :  
PB116111ZHE#06

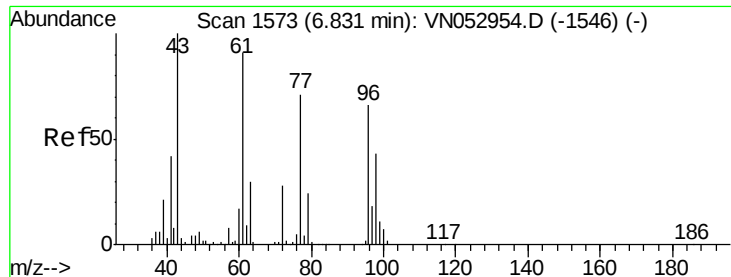
Tgt Ion: 43 Resp: 8544  
Ion Ratio Lower Upper  
43 100  
74 20.9 19.2 28.8



#20  
Methylene Chloride  
Concen: 4.000 ug/l  
RT: 4.56 min Scan# 866  
Delta R.T. 0.00 min  
Lab File: VN053261.D  
Acq: 3 Jan 2019 14:43

Tgt Ion: 84 Resp: 52449  
Ion Ratio Lower Upper  
84 100  
49 122.2 96.8 145.2  
51 37.1 29.9 44.9  
86 64.9 51.8 77.6

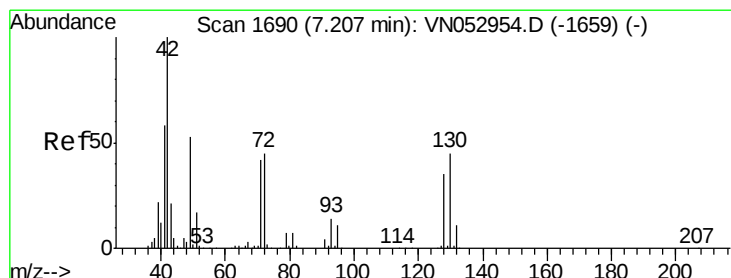
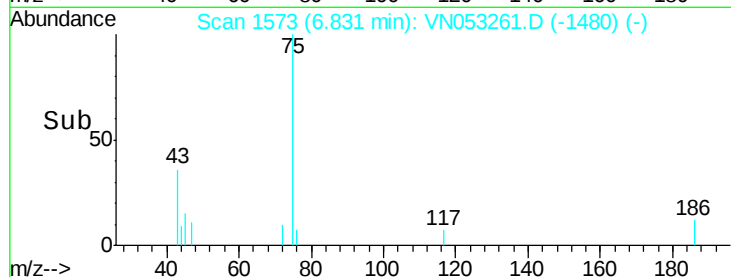
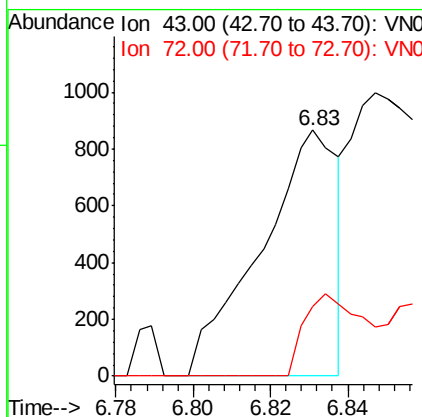
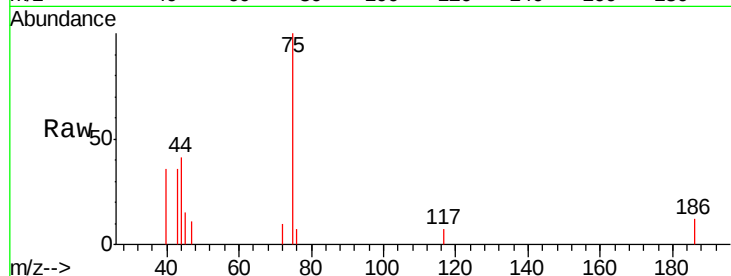




#25  
2-Butanone  
Concen: 0.297 ug/l  
RT: 6.83 min Scan# 1573  
Delta R.T. -0.00 min  
Lab File: VN053261.D  
Acq: 3 Jan 2019 14:43

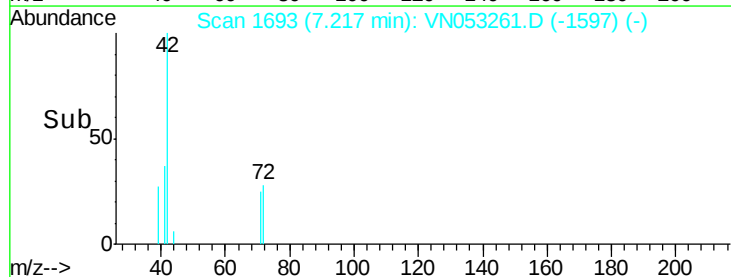
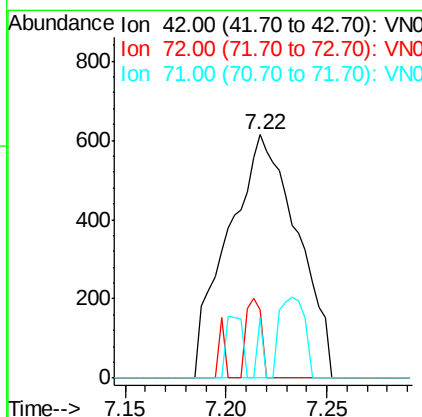
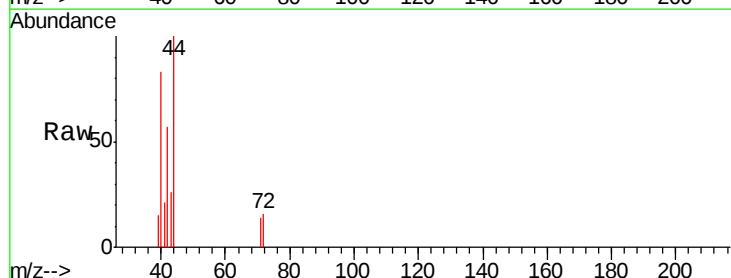
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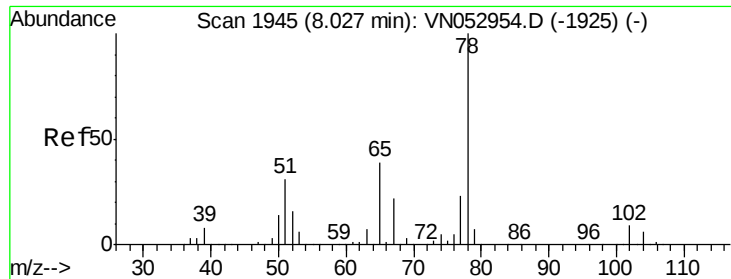
Tgt Ion: 43 Resp: 1199  
Ion Ratio Lower Upper  
43 100  
72 28.3 21.0 31.6



#29  
Tetrahydrofuran  
Concen: 0.486 ug/l  
RT: 7.22 min Scan# 1693  
Delta R.T. 0.01 min  
Lab File: VN053261.D  
Acq: 3 Jan 2019 14:43

Tgt Ion: 42 Resp: 1464  
Ion Ratio Lower Upper  
42 100  
72 7.2 34.7 52.1#  
71 2.0 32.3 48.5#

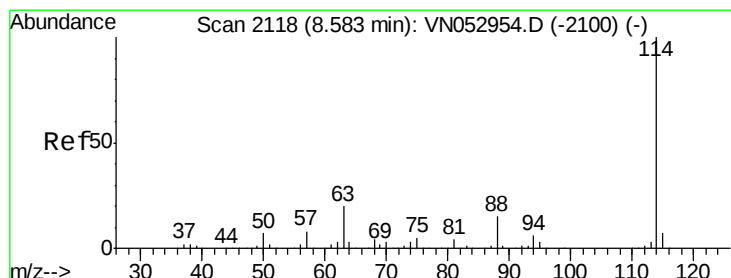
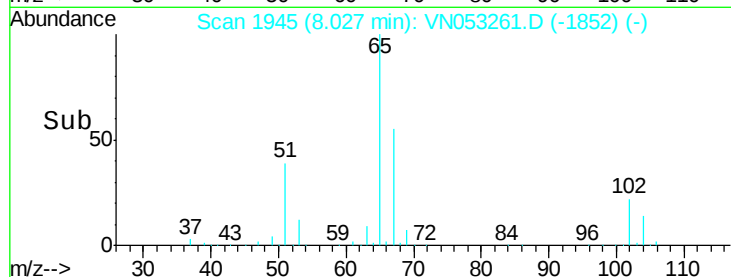
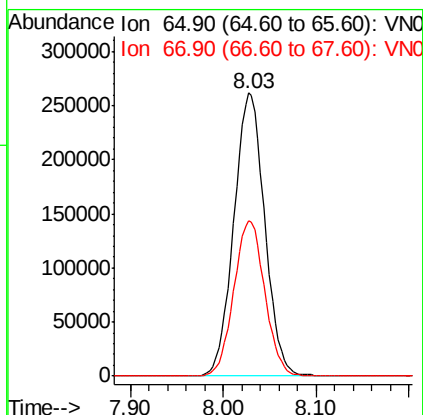
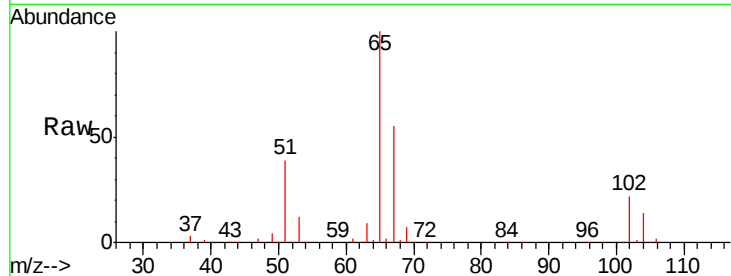




#33  
 1,2-Dichloroethane-d4  
 Concen: N.D. ug/l  
 RT: 8.03 min Scan# 1945  
 Delta R.T. -0.00 min  
 Lab File: VN053261.D  
 Acq: 3 Jan 2019 14:43

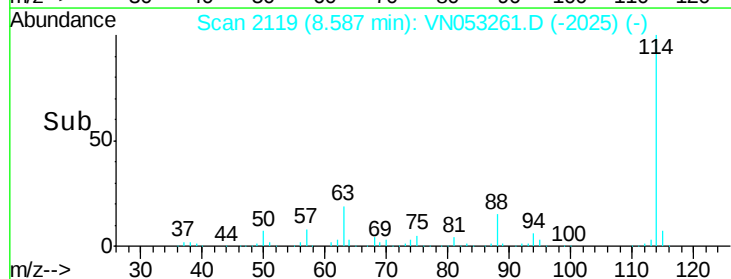
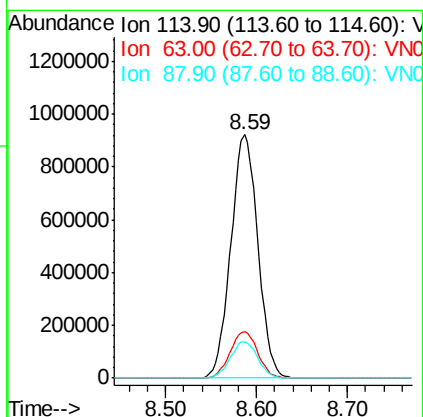
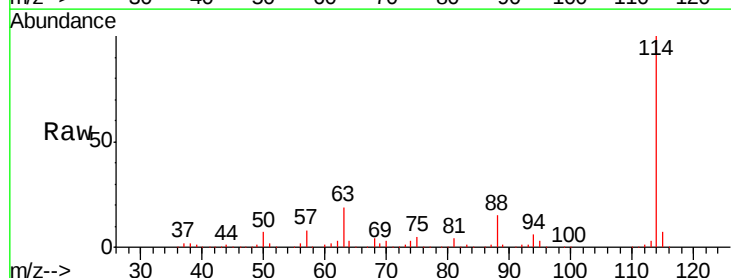
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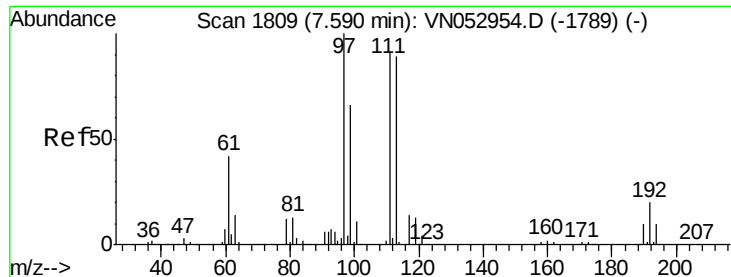
Tgt Ion: 65 Resp: 604774  
 Ion Ratio Lower Upper  
 65 100  
 67 54.9 0.0 110.4



#34  
 1,4-Difluorobenzene  
 Concen: 50.000 ug/l  
 RT: 8.59 min Scan# 2119  
 Delta R.T. 0.00 min  
 Lab File: VN053261.D  
 Acq: 3 Jan 2019 14:43

Tgt Ion: 114 Resp: 1902502  
 Ion Ratio Lower Upper  
 114 100  
 63 19.1 0.0 39.8  
 88 15.1 0.0 31.0

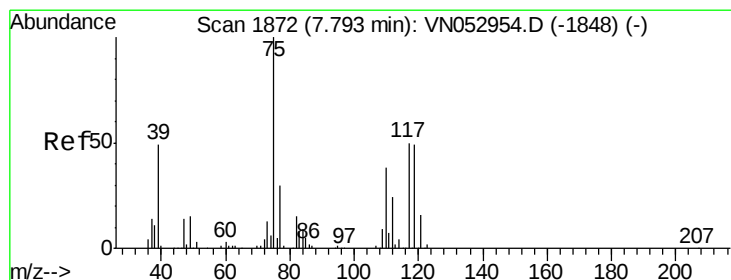
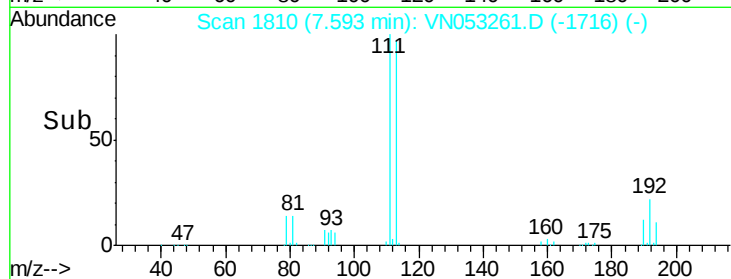
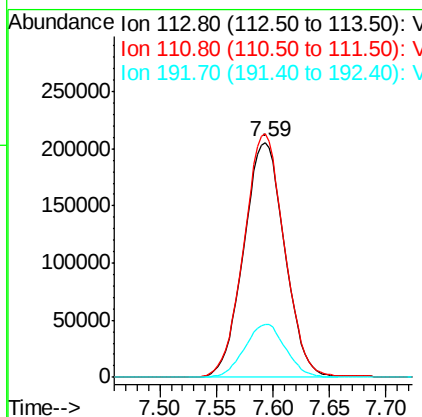
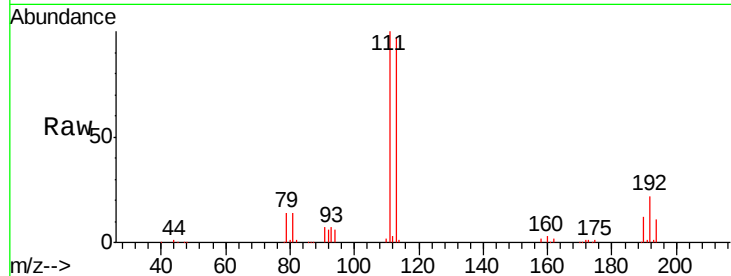




#35  
 Dibromofluoromethane  
 Concen: 50.000 ug/l  
 RT: 7.59 min Scan# 1810  
 Delta R.T. 0.00 min  
 Lab File: VN053261.D  
 Acq: 3 Jan 2019 14:43

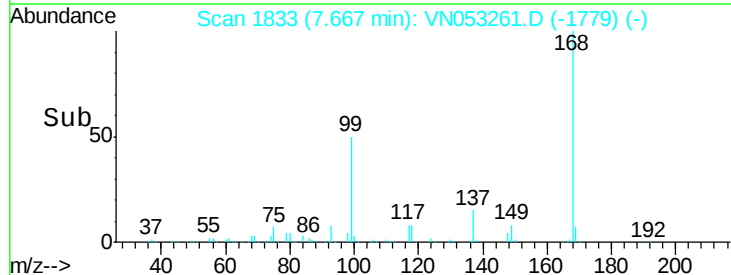
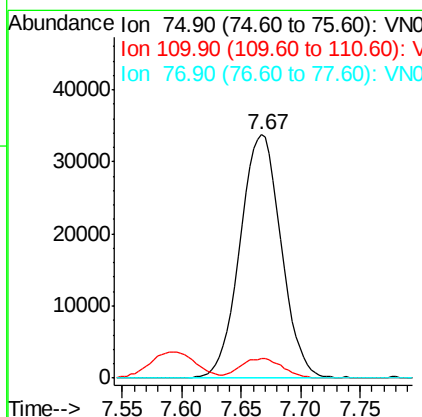
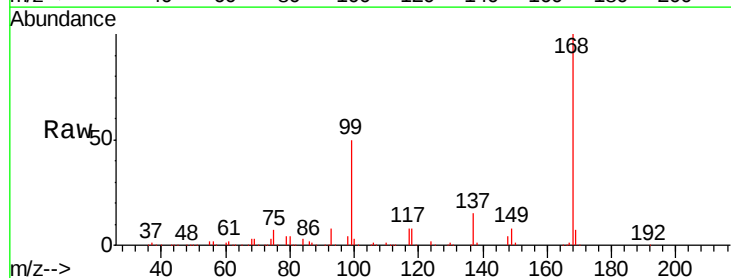
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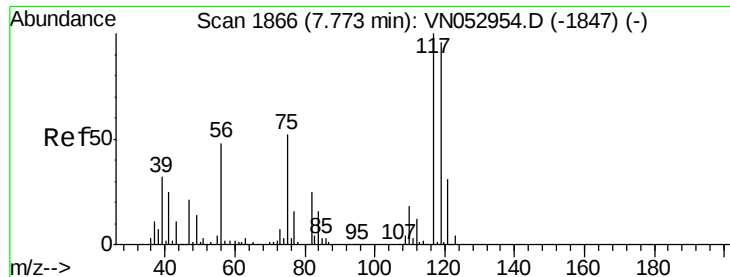
Tgt Ion:113 Resp: 518921  
 Ion Ratio Lower Upper  
 113 100  
 111 103.0 83.0 124.4  
 192 22.6 17.5 26.3



#36  
 1,1-Dichloropropene  
 Concen: 4.425 ug/l  
 RT: 7.67 min Scan# 1833  
 Delta R.T. -0.13 min  
 Lab File: VN053261.D  
 Acq: 3 Jan 2019 14:43

Tgt Ion: 75 Resp: 80804  
 Ion Ratio Lower Upper  
 75 100  
 110 8.3 18.2 54.6#  
 77 0.0 24.9 37.3#

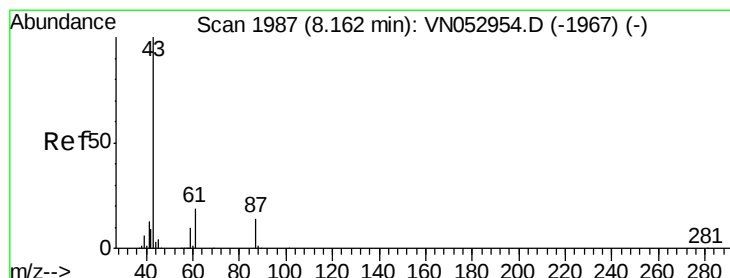
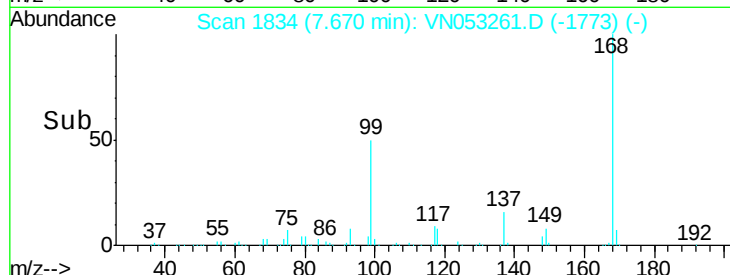
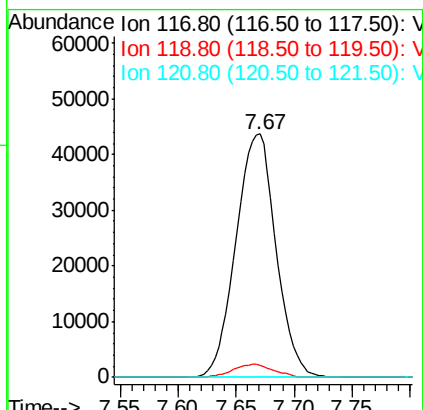
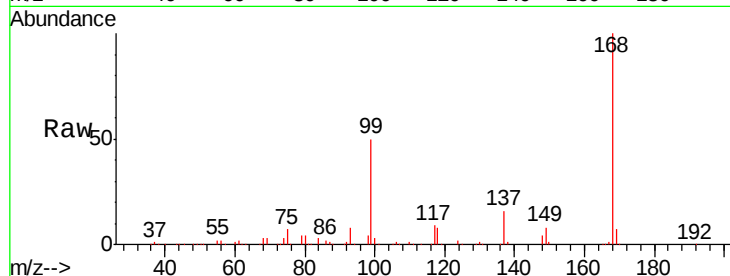




#38  
Carbon Tetrachloride  
Concen: 6.275 ug/l  
RT: 7.67 min Scan# 1834  
Delta R.T. -0.10 min  
Lab File: VN053261.D  
Acq: 3 Jan 2019 14:43

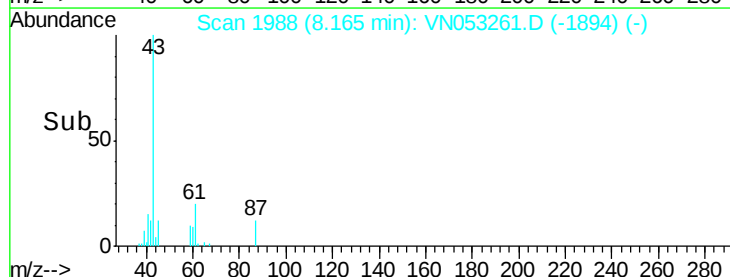
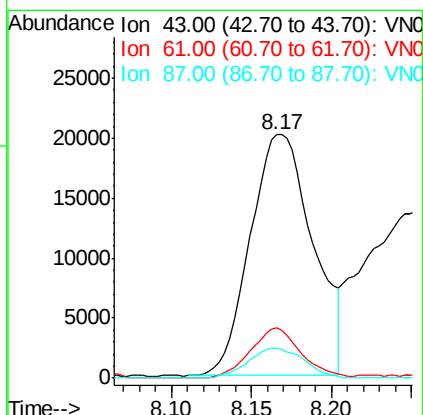
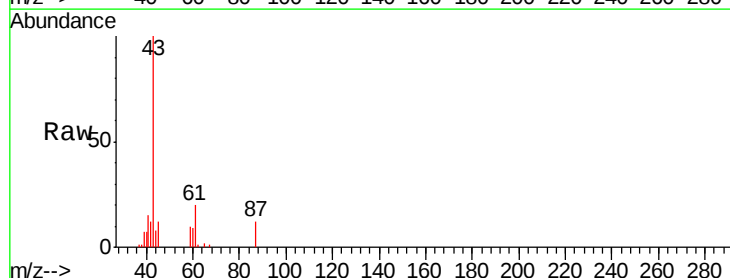
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MSVOA\_N  
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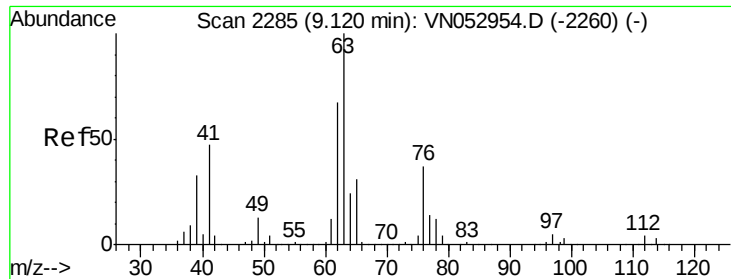
Tgt Ion: 117 Resp: 105021  
Ion Ratio Lower Upper  
117 100  
119 5.1 77.1 115.7#  
121 0.0 24.9 37.3#



#43  
Isopropyl Acetate  
Concen: 1.761 ug/l  
RT: 8.17 min Scan# 1988  
Delta R.T. 0.00 min  
Lab File: VN053261.D  
Acq: 3 Jan 2019 14:43

Tgt Ion: 43 Resp: 54626  
Ion Ratio Lower Upper  
43 100  
61 16.7 22.9 34.3#  
87 10.9 10.6 15.8





#45

1,2-Dichloropropane

Concen: 0.218 ug/l

RT: 9.27 min Scan# 2331

Delta R.T. 0.15 min

Lab File: VN053261.D

Acq: 3 Jan 2019 14:43

Instrument :

MSVOA\_N

ClientSampleId :

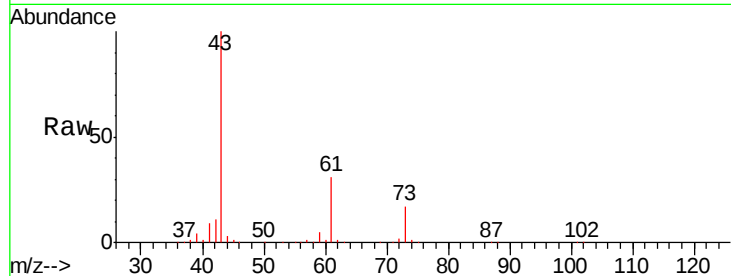
PB116111ZHE#06

Tgt Ion: 63 Resp: 3091

Ion Ratio Lower Upper

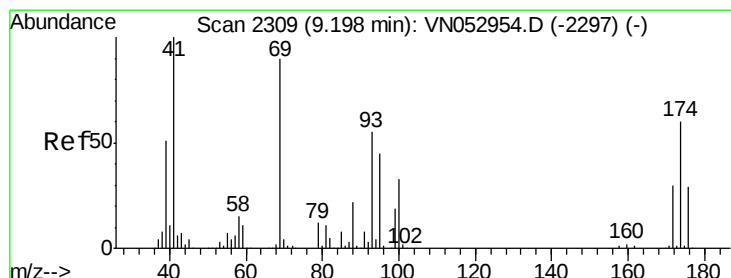
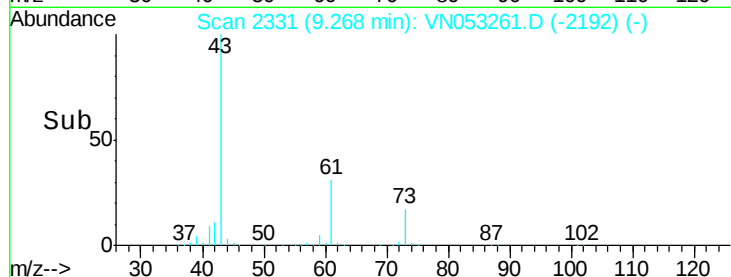
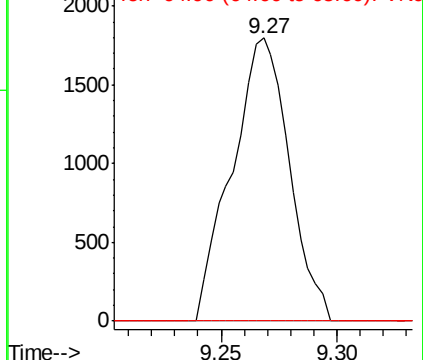
63 100

65 0.0 24.6 37.0#



Abundance Ion 62.90 (62.60 to 63.60): VN0

Ion 64.90 (64.60 to 65.60): VN0



#48

Methyl methacrylate

Concen: 1.475 ug/l

RT: 9.18 min Scan# 2304

Delta R.T. -0.02 min

Lab File: VN053261.D

Acq: 3 Jan 2019 14:43

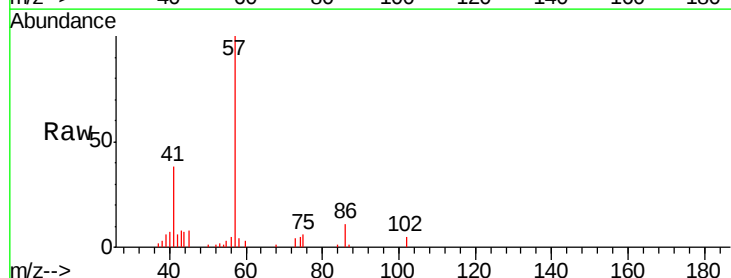
Tgt Ion: 41 Resp: 14595

Ion Ratio Lower Upper

41 100

69 0.0 72.2 108.2#

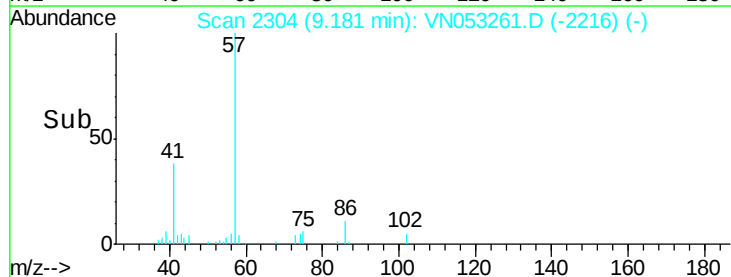
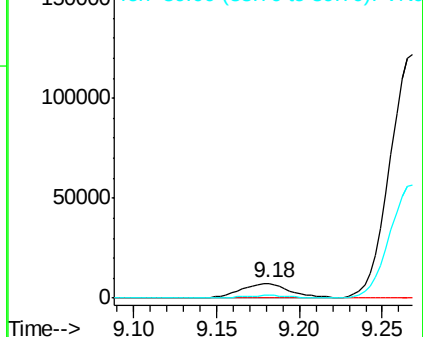
39 0.0 41.9 62.9#

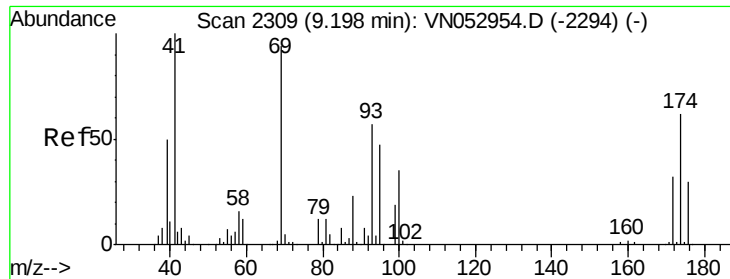


Abundance Ion 41.00 (40.70 to 41.70): VN0

Ion 69.00 (68.70 to 69.70): VN0

Ion 39.00 (38.70 to 39.70): VN0





#49

1,4-Dioxane

Concen: 2.613 ug/l

RT: 9.27 min Scan# 2332

Delta R.T. 0.07 min

Lab File: VN053261.D

Acq: 3 Jan 2019 14:43

Instrument :

MSVOA\_N

ClientSampleId :

PB116111ZHE#06

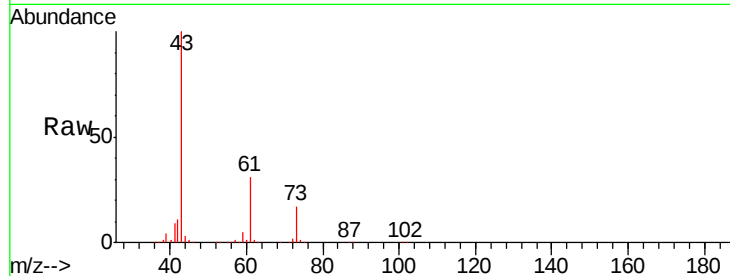
Tgt Ion: 88 Resp: 327

Ion Ratio Lower Upper

88 100

43 772084.1 26.6 40.0#

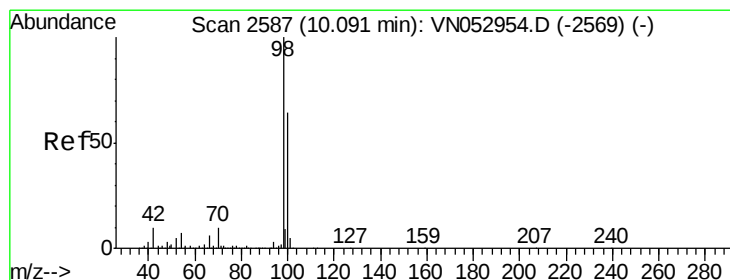
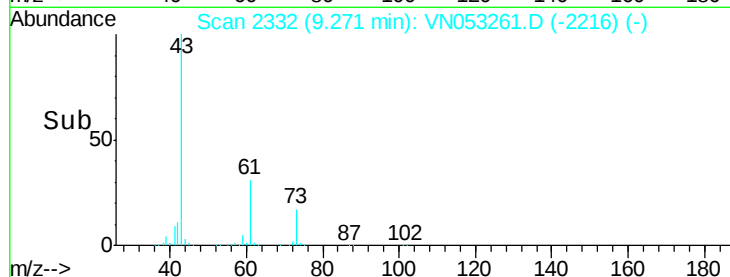
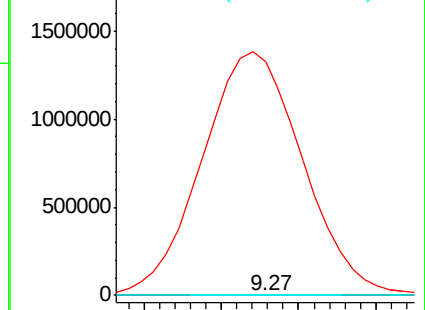
58 3386.5 58.4 87.6#



Abundance Ion 88.00 (87.70 to 88.70): VN0

Ion 43.00 (42.70 to 43.70): VN0

Ion 58.00 (57.70 to 58.70): VN0



#50

Toluene-d8

Concen: 2.613 ug/l

RT: 10.09 min Scan# 2587

Delta R.T. -0.00 min

Lab File: VN053261.D

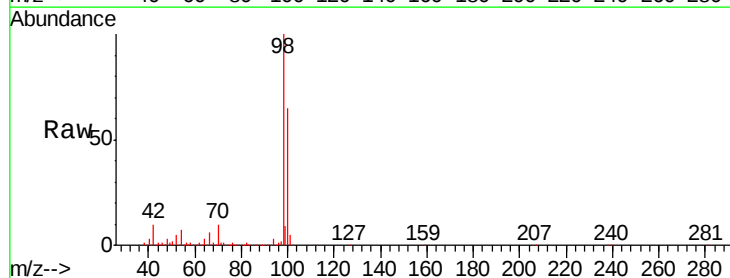
Acq: 3 Jan 2019 14:43

Tgt Ion: 98 Resp: 2331867

Ion Ratio Lower Upper

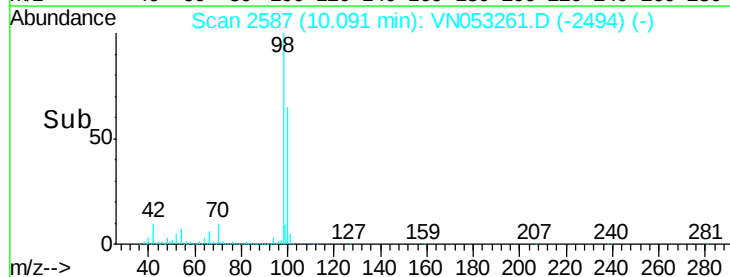
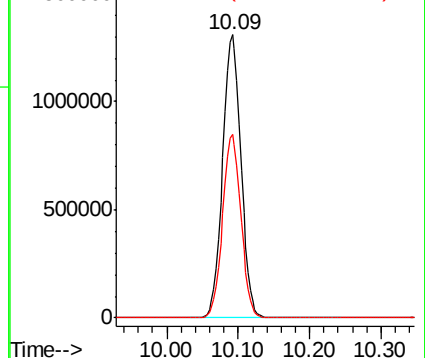
98 100

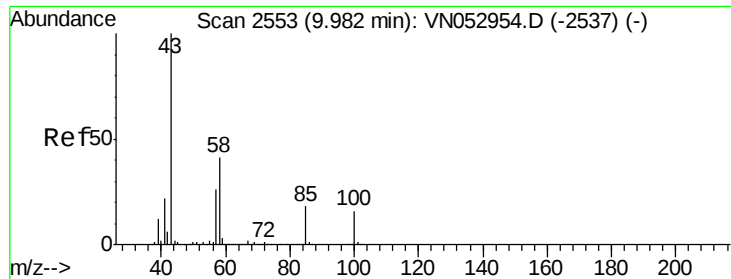
100 64.6 51.6 77.4



Abundance Ion 98.00 (97.70 to 98.70): VN0

Ion 100.00 (99.70 to 100.70): VN0

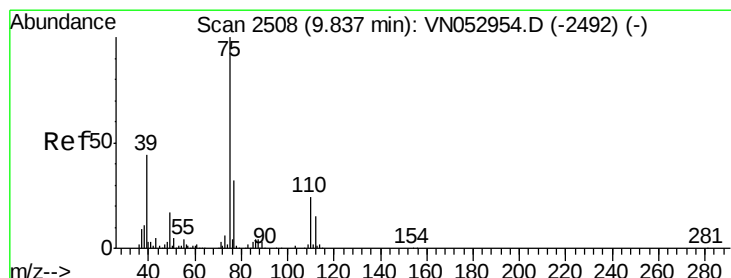
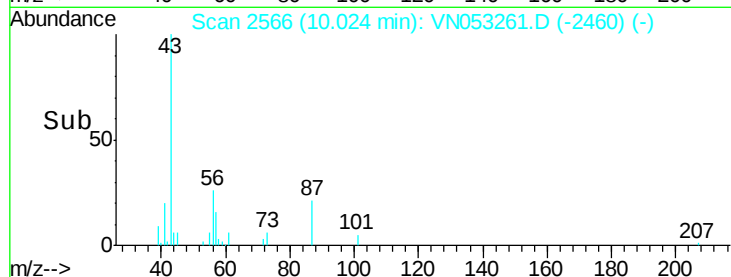
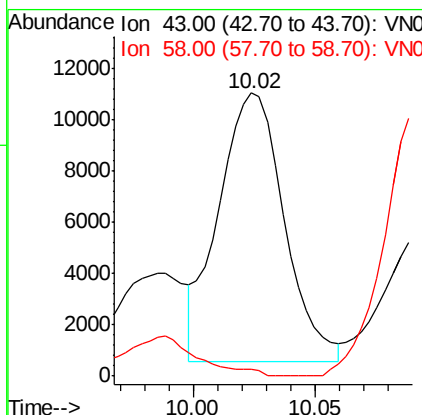
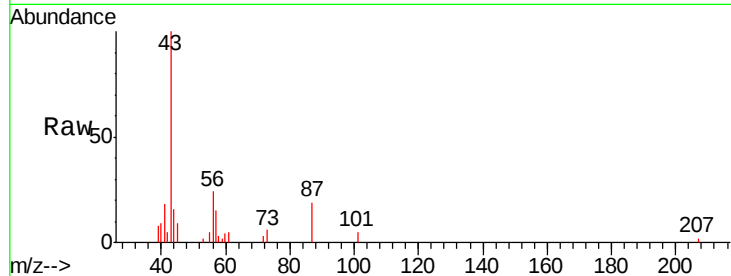




#51  
 4-Methyl-2-Pentanone  
 Concen: 1.973 ug/l  
 RT: 10.02 min Scan# 2566  
 Delta R.T. 0.04 min  
 Lab File: VN053261.D  
 Acq: 3 Jan 2019 14:43

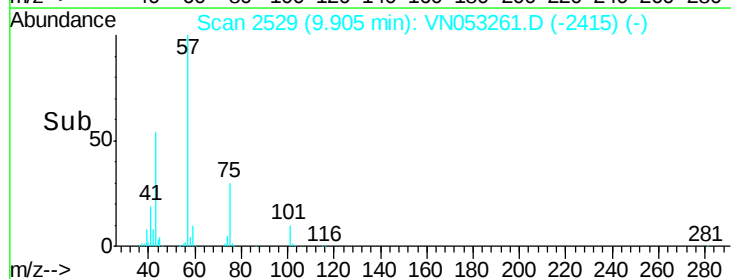
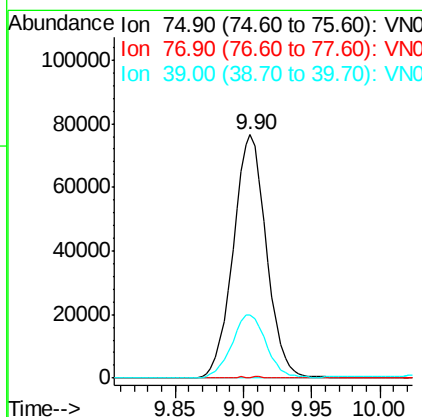
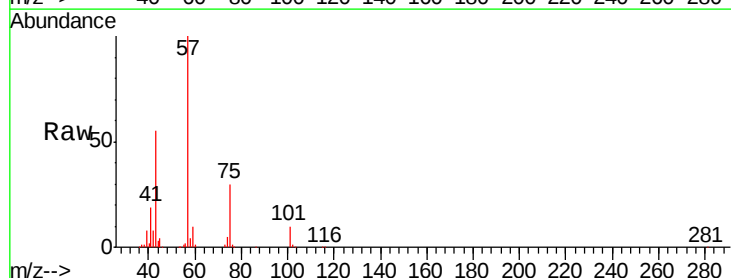
Instrument :  
 MSVOA\_N  
 ClientSampleId :  
 PB116111ZHE#06

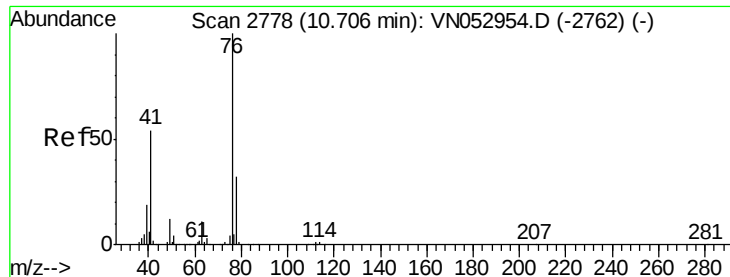
Tgt Ion: 43 Resp: 19480  
 Ion Ratio Lower Upper  
 43 100  
 58 0.0 32.2 48.4#



#54  
 cis-1,3-Dichloropropene  
 Concen: 6.100 ug/l  
 RT: 9.90 min Scan# 2529  
 Delta R.T. 0.07 min  
 Lab File: VN053261.D  
 Acq: 3 Jan 2019 14:43

Tgt Ion: 75 Resp: 128997  
 Ion Ratio Lower Upper  
 75 100  
 77 0.4 25.8 38.8#  
 39 26.1 34.8 52.2#





#57

1,3-Dichloropropane

Concen: 1.226 ug/l

RT: 10.76 min Scan# 2796

Delta R.T. 0.06 min

Lab File: VN053261.D

Acq: 3 Jan 2019 14:43

Instrument :

MSVOA\_N

ClientSampleId :

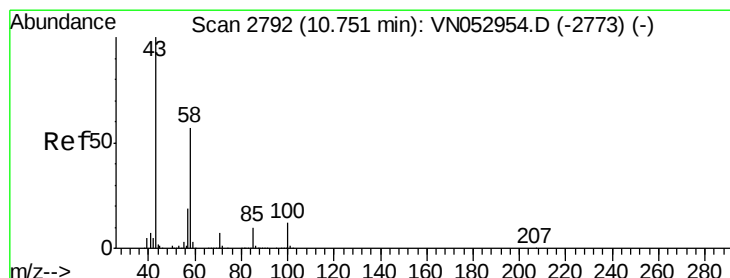
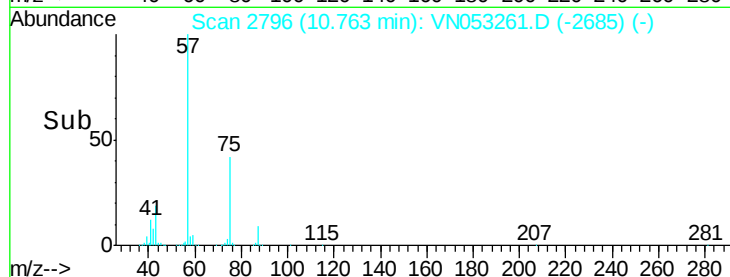
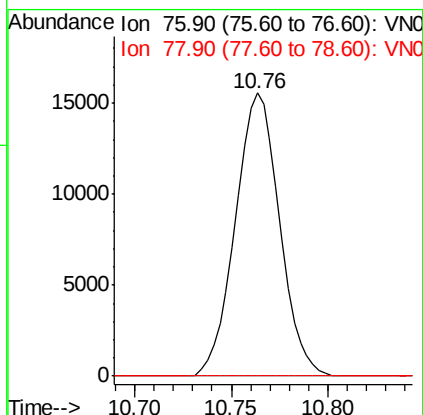
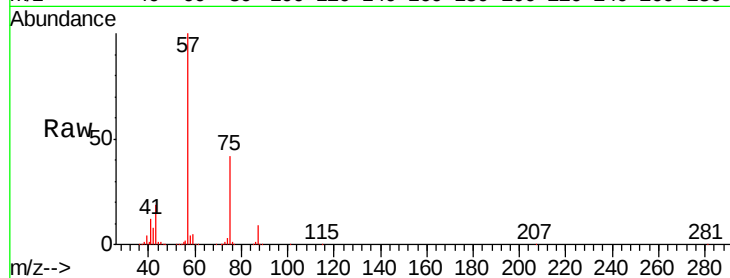
PB116111ZHE#06

Tgt Ion: 76 Resp: 24698

Ion Ratio Lower Upper

76 100

78 0.0 25.8 38.8#



#59

2-Hexanone

Concen: 49.408 ug/l

RT: 10.76 min Scan# 2796

Delta R.T. 0.01 min

Lab File: VN053261.D

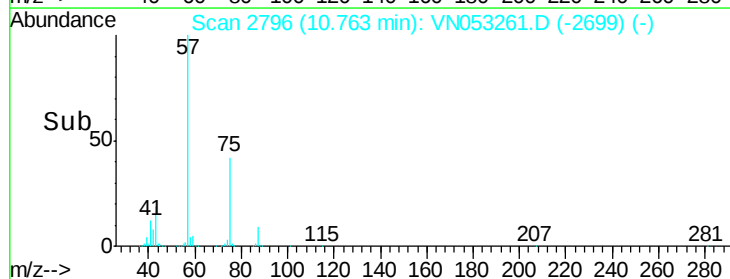
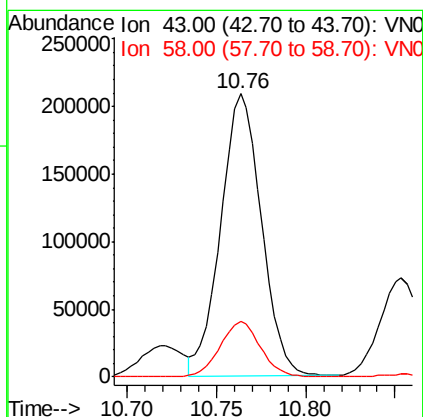
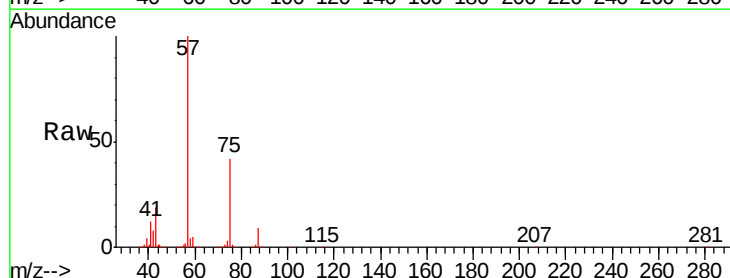
Acq: 3 Jan 2019 14:43

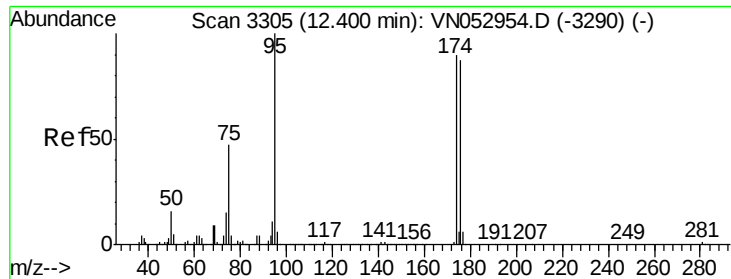
Tgt Ion: 43 Resp: 330008

Ion Ratio Lower Upper

43 100

58 19.8 28.1 84.3#





#62

4-Bromofluorobenzene

Concen: N.D. ug/l

RT: 12.40 min Scan# 3305

Delta R.T. -0.00 min

Lab File: VN053261.D

Acq: 3 Jan 2019 14:43

Instrument :

MSVOA\_N

ClientSampleId :

PB116111ZHE#06

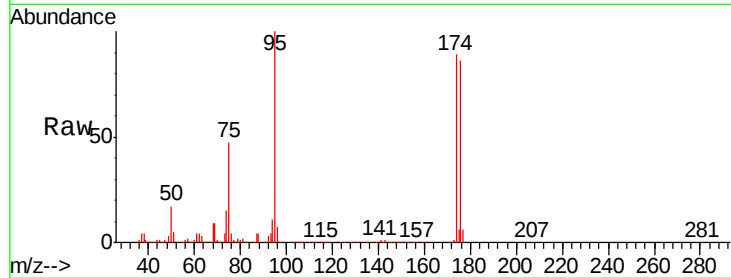
Tgt Ion: 95 Resp: 738066

Ion Ratio Lower Upper

95 100

174 90.1 0.0 178.8

176 87.5 0.0 173.8

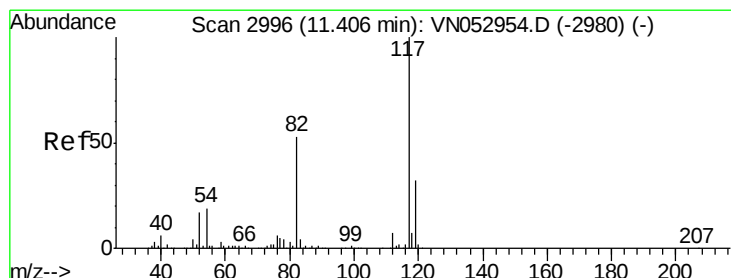
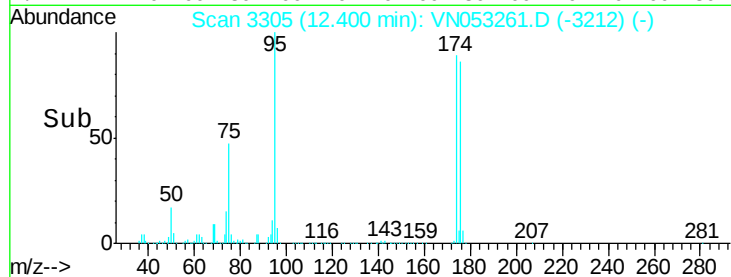


Abundance Ion 94.90 (94.60 to 95.60): VN053261.D (-3212) (-)

Ion 173.80 (173.50 to 174.50): VN053261.D (-3212) (-)

Ion 175.80 (175.50 to 176.50): VN053261.D (-3212) (-)

Time--> 12.30 12.40 12.50



#63

Chlorobenzene-d5

Concen: 50.000 ug/l

RT: 11.41 min Scan# 2996

Delta R.T. -0.00 min

Lab File: VN053261.D

Acq: 3 Jan 2019 14:43

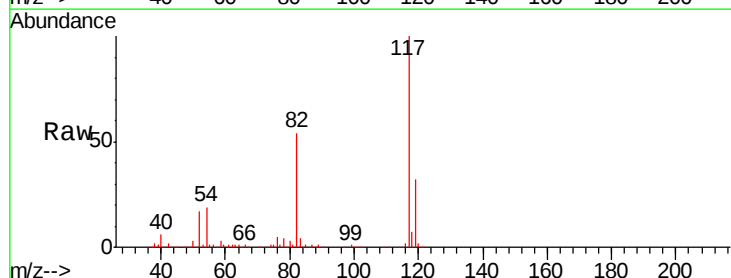
Tgt Ion: 117 Resp: 1698117

Ion Ratio Lower Upper

117 100

82 53.8 42.8 64.2

119 32.0 25.5 38.3

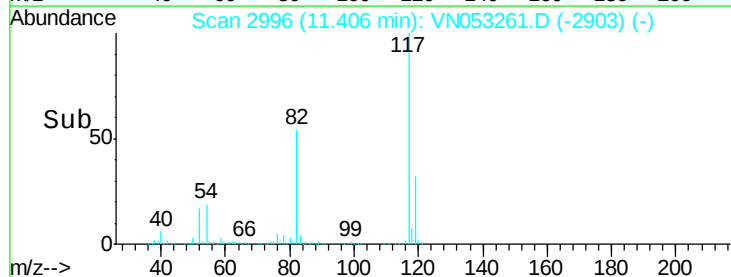


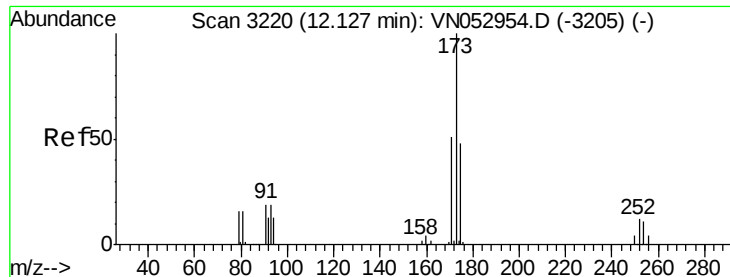
Abundance Ion 116.90 (116.60 to 117.60): VN053261.D (-2903) (-)

Ion 82.00 (81.70 to 82.70): VN053261.D (-2903) (-)

Ion 118.90 (118.60 to 119.60): VN053261.D (-2903) (-)

Time--> 11.30 11.40 11.50





#71

Bromoform

Concen: 0.510 ug/l

RT: 12.40 min Scan# 3306

Delta R.T. 0.28 min

Lab File: VN053261.D

Acq: 3 Jan 2019 14:43

Instrument :

MSVOA\_N

ClientSampleId :

PB116111ZHE#06

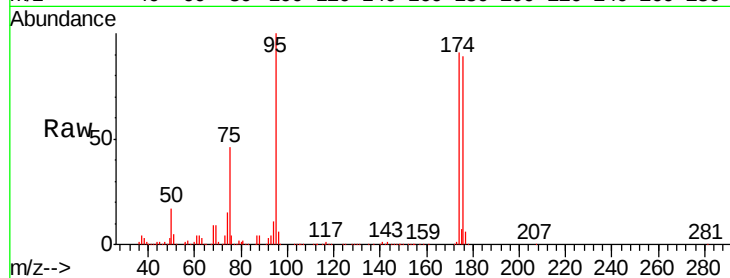
Tgt Ion:173 Resp: 4823

Ion Ratio Lower Upper

173 100

175 875.6 24.3 72.9#

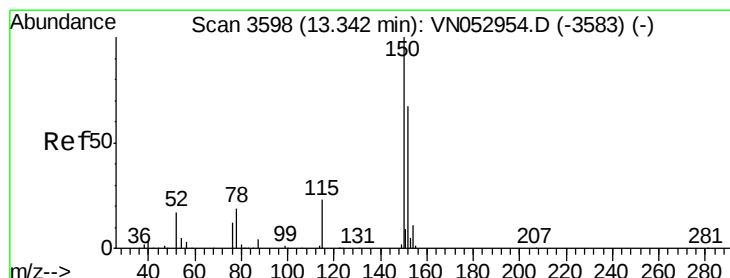
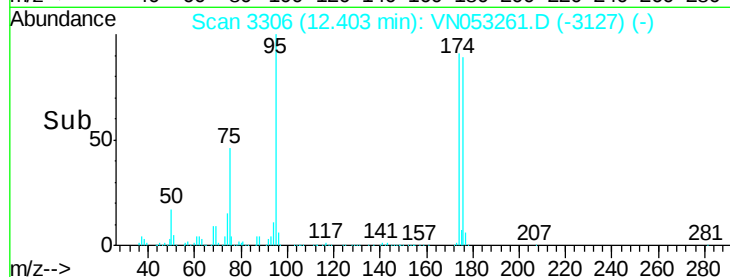
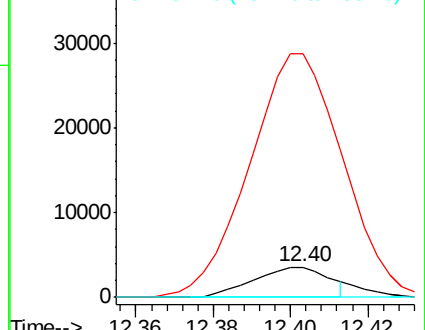
254 0.0 0.1 0.1#



Abundance Ion 172.70 (172.40 to 173.40): V

Ion 174.70 (174.40 to 175.40): V

Ion 254.40 (254.10 to 255.10): V



#72

1,4-Dichlorobenzene-d4

Concen: 50.000 ug/l

RT: 13.34 min Scan# 3598

Delta R.T. -0.00 min

Lab File: VN053261.D

Acq: 3 Jan 2019 14:43

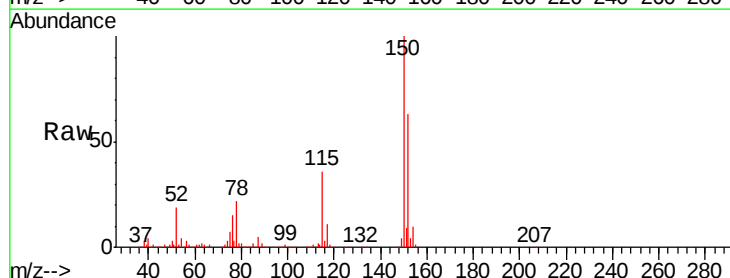
Tgt Ion:152 Resp: 610679

Ion Ratio Lower Upper

152 100

115 56.2 28.3 85.0

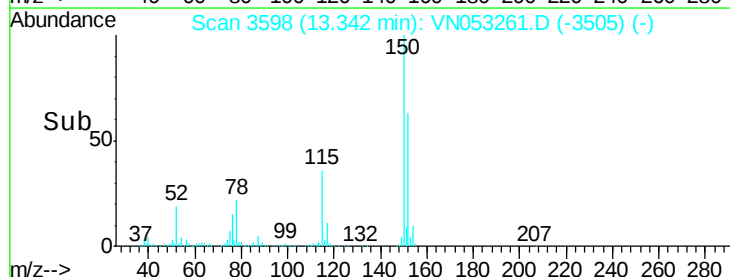
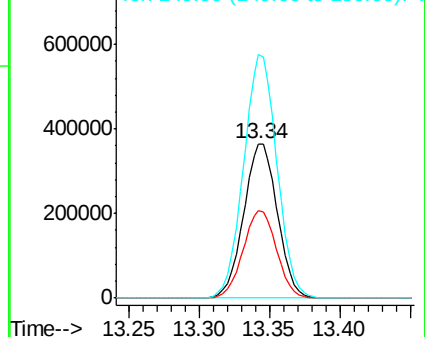
150 156.4 0.0 347.8

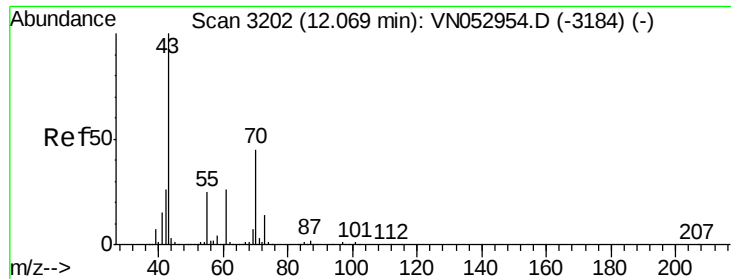


Abundance Ion 151.90 (151.60 to 152.60): V

Ion 114.90 (114.60 to 115.60): V

Ion 149.90 (149.60 to 150.60): V





#74

N-ethyl acetate

Concen: 2.952 ug/l

RT: 11.88 min Scan# 3142

Delta R.T. -0.19 min

Lab File: VN053261.D

Acq: 3 Jan 2019 14:43

Instrument :

MSVOA\_N

ClientSampleId :

PB116111ZHE#06

Tgt Ion: 43 Resp: 39154

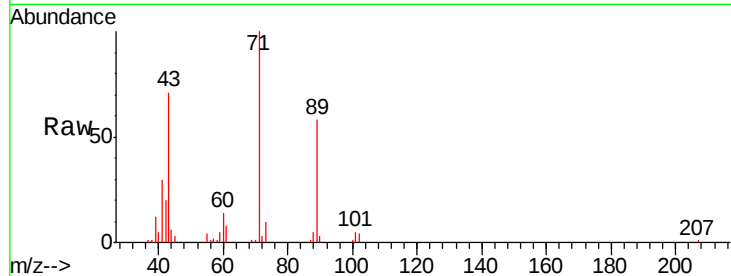
Ion Ratio Lower Upper

43 100

70 2.1 34.2 51.4#

55 5.3 20.3 30.5#

61 11.2 20.0 30.0#

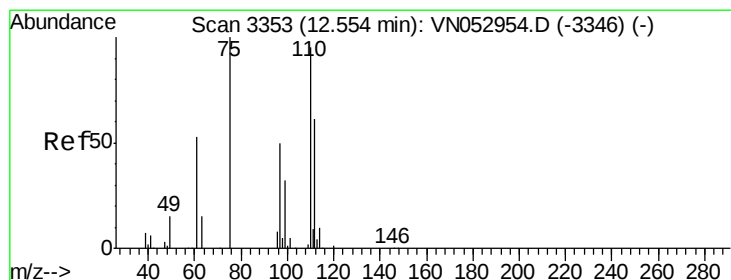
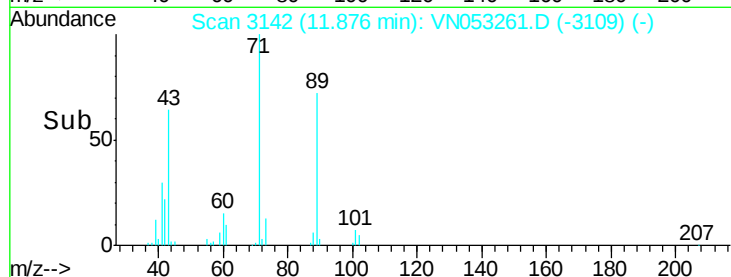
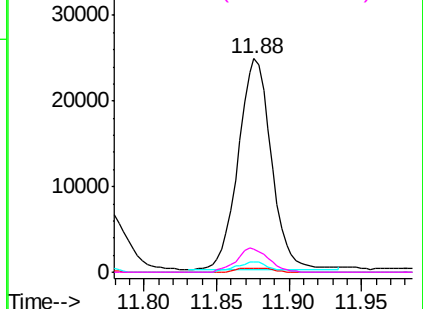


Abundance Ion 43.00 (42.70 to 43.70): VNO

Ion 70.00 (69.70 to 70.70): VNO

Ion 55.00 (54.70 to 55.70): VNO

Ion 61.00 (60.70 to 61.70): VNO



#76

1,2,3-Trichloropropane

Concen: 33.515 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. -0.15 min

Lab File: VN053261.D

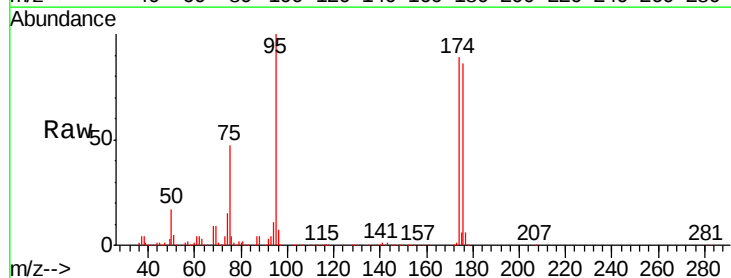
Acq: 3 Jan 2019 14:43

Tgt Ion: 75 Resp: 344538

Ion Ratio Lower Upper

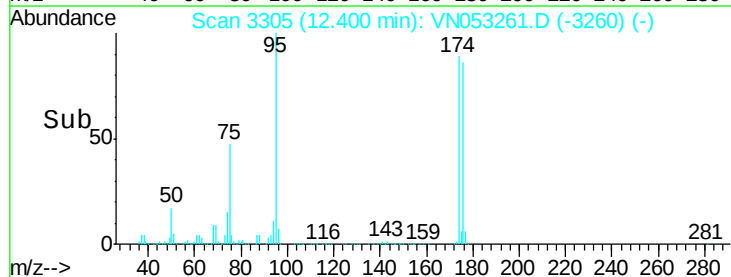
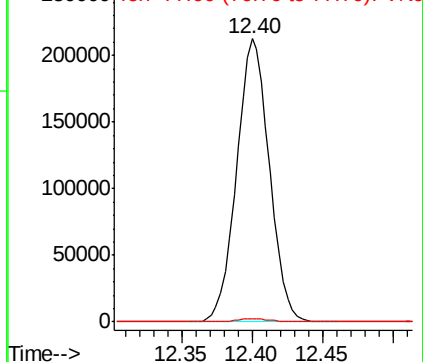
75 100

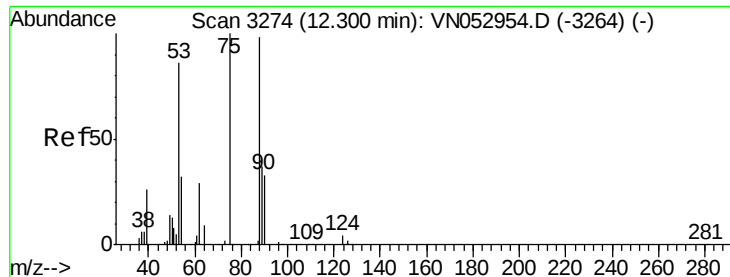
77 1.1 0.0 0.0#



Abundance Ion 74.90 (74.60 to 75.60): VNO

Ion 77.00 (76.70 to 77.70): VNO





#81

trans-1,4-Dichloro-2-butene

Concen: 108.022 ug/l

RT: 12.40 min Scan# 3305

Delta R.T. 0.10 min

Lab File: VN053261.D

Acq: 3 Jan 2019 14:43

Instrument :

MSVOA\_N

ClientSampleId :

PB116111ZHE#06

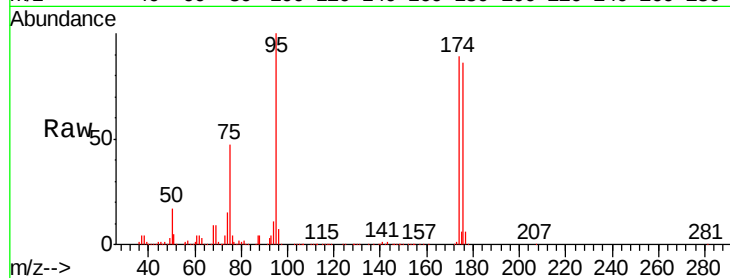
Tgt Ion: 75 Resp: 344538

Ion Ratio Lower Upper

75 100

53 0.0 74.7 112.1#

89 0.0 36.1 54.1#

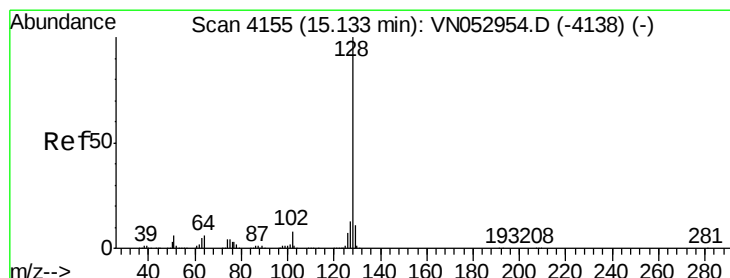
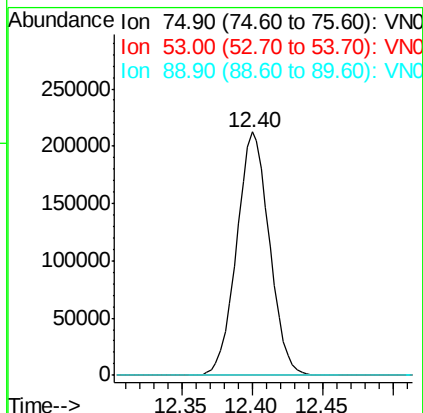
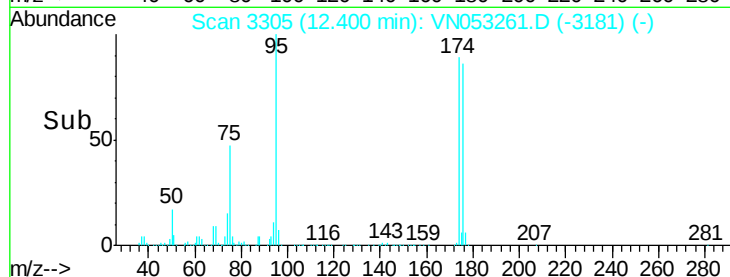


Abundance Ion 74.90 (74.60 to 75.60): VN053261.D (-3181) (-)

Ion 53.00 (52.70 to 53.70): VN053261.D (-3181) (-)

Ion 88.90 (88.60 to 89.60): VN053261.D (-3181) (-)

Time-->



#95

Naphthalene

Concen: 1.154 ug/l

RT: 15.14 min Scan# 4156

Delta R.T. 0.00 min

Lab File: VN053261.D

Acq: 3 Jan 2019 14:43

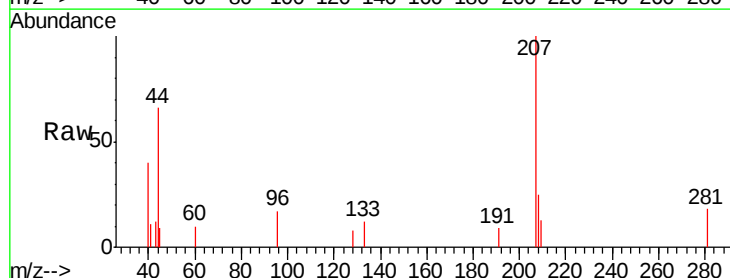
Tgt Ion: 128 Resp: 171

Ion Ratio Lower Upper

128 100

127 0.0 10.2 15.4#

129 0.0 8.6 13.0#



Abundance Ion 128.00 (127.70 to 128.70): VN053261.D (-4062) (-)

Ion 127.00 (126.70 to 127.70): VN053261.D (-4062) (-)

Ion 129.00 (128.70 to 129.70): VN053261.D (-4062) (-)

Time-->

